

# ENVIRONMENTAL EDUCATION & OUTREACH

*In the end, we conserve only what we love.  
We will love only what we understand.  
We will understand only what we are taught.*  
—Baba Dioum



U.S. EPA Poem & Poster Contest Entry

*The environmental education community* is sometimes accused of indoctrinating people with simple slogans like “hug-a-tree” or “save the whales.” In reality, environmental issues are often so complex, involving scientific, economic, and social factors, that no one can arbitrarily dictate the right or wrong action to take when faced with decisions that affect the environment.

At EPA, we work to help citizens – from youth educators to plant managers in large corporations – increase their environmental knowledge and improve their ability to make decisions that protect the environment and public health, while also considering economic factors. Environmental education goes beyond imparting information; it enhances the critical-thinking, problem-solving, and decision-making skills needed to make responsible environmental choices.

## WE'RE ALL IN THIS TOGETHER

Traditionally, EPA has been a regulatory agency, but we understand that regulations cannot be implemented without educating the community about the need for them and providing local communities with technical assistance. We offer assistance to all who request it, whether a high school science teacher or an electro-

plating manufacturer. During 1996, of our nearly 800 regional employees, more than 100 were involved in voluntary outreach efforts, participating in hundreds of workshops, conferences, exhibits, technical assistance consultations, and classes.

The National Environmental Education Act of 1990 officially charged EPA with educating the public. This Act specifically appropriates funds for EPA to give small grants to schools, nonprofit organizations, and state, local, and tribal agencies for projects that inform a wide variety of audiences about the environment. Last year, EPA's New England Office received more than 150 proposals for grants, and twenty-three organizations were awarded a total of \$167,474 (Figure 1).

Recognizing that local actions are critical to environmental protection, EPA's New England Office

Education Figure 1

### Education, Empowerment, and Technical Assistance Grants Awarded by EPA'S New England Office in 1996

Name of Program	Total \$\$ Awarded	# Grants Awarded
Environmental Education	\$167,474	23
Environmental Justice	\$354,377	19
Urban Environmental Initiative (UEI)	\$595,212	16
Technical Assistance Grants (TAG)	\$150,000	3
Pollution Prevention Technical Assistance	\$1,173,761	26

## WETLAND TEACHERS

Hands-on experience with wetlands is a perfect way to get students to understand, appreciate, and support the protection of these essential and complex natural habitats. For this reason, EPA's New England Office has developed Wetlands Teacher Training Workshops for school teachers in grades five through twelve. Training sessions are held in the field to increase teachers' knowledge of wetlands ecology and provide them with classroom and outdoor activities for their students. Teachers that attend these workshops also receive a complimentary copy of EPA's New England wetlands curriculum and video packet, *A World In Our Backyard: A Wetlands Education and Stewardship Program*. In 1996, fifteen wetlands workshops were conducted for more than 350 teachers in the region.

encourages projects that are relevant to the local community. An example is a public school project in Lowell, Massachusetts, "The Merrimack River: Our Ecological and Industrial Lifeline," in which students examine the water quality of an urban river and share that data and historical research with other students via the Internet. We hope to continue funding similar projects in the years ahead.

EPA's New England Office also supports community education and empowerment projects through other programs such as the Urban Environmental Initiative (UEI). For example, UEI entered into a cooperative agreement with ONE/CHANE, Inc., a group in Hartford, Connecticut, to fund a Community Environmental Organizer. This person provides leadership and training to residents of North Hartford, helping them to participate in environmental decisions affecting their health and welfare. ONE/CHANE also provided a challenging environmental education program for North Hartford youth, ages fourteen to twenty-one, during the summer of 1996. Participants learned about their environment, gained

computer and mapping skills, engaged in cleanup and beautification projects on Main Street and in vacant lots, and informed community members about their activities.

In 1996, EPA's New England Office and its state partners sponsored more than fifty open houses or public meetings in communities surrounding hazardous waste sites. These meetings improve communication with the public, helping people understand the Superfund site assessment and cleanup process and the potential risks associated with these sites. Meetings are well-publicized and include property owners, local officials, businesses, and citizens concerned about potential threats to the health, environment, and economy of their communities. EPA also offers funding to citizen groups affected by Superfund sites through the Technical Assistance Grants (TAG) program. To date, thirty-one of the ninety-four communities affected by New England's current Superfund sites have received TAG grants.

## TEAMWORK THAT WORKS

At the same time EPA and our environmental education partners are interacting with the public, we are educating business leaders and decision-makers about doing business in a more environmentally-friendly way. EPA's New England Office, working with state and local agencies, has become a leader in providing pollution prevention and compliance assistance training to the regulated community. Much of this work is accomplished through EPA's New England Environmental Assistance Team (NEEATeam).

The NEEATeams's recent work in developing a comprehensive outreach project for Printing Industries of New England (PINE) is one example of a pollution prevention and regulation compliance success story. Through a grant to the Massachusetts Department of Environmental Protection, EPA's New England Office and PINE have worked closely

## VOLUNTEER MONITORING: GETTING INVOLVED, GETTING RESULTS

Volunteer monitoring groups help educate local communities about environmental issues, serve as active stewards of the environment, help state, and local agencies target pollution problems, and provide high quality information that agencies can use. Approximately 20,000 people participate in more than 200 volunteer monitoring programs in New England, ranging from small groups of individuals working on local sites to statewide organizations sponsored by universities and state agencies.

Data generated by volunteers are used by local, state and federal agencies to assess environmental conditions and make appropriate decisions. For example, volunteers in Maine and Massachusetts have collected data that enabled closed shellfish beds to be reclassified as "open" or "conditionally open."

In Rhode Island, volunteers helped to expose pollution problems and worked with agencies to develop solutions in the Blackstone River and Runnins River areas. EPA's New England Office works with these volunteer monitoring groups in a variety of ways: participating in technical workshops; funding projects through the National Estuary Program, education, and non-point source grants; and working with groups on environmental planning and management issues in specific areas such as Casco, Narragansett and Massachusetts bays.

together to develop and implement several outreach and educational programs for printers throughout the region. On-site pollution prevention and compliance assistance visits were made by PINE at seventy-four print shops in the Boston area. Through these programs, printers have learned about proper waste management and pollution prevention.

Rhode Island recently passed regulations requiring auto body shops to use a new type of spray gun which reduces the amount of solvent used in paint and dramatically cuts the amount of volatile organic compound (VOC) emissions released into the atmosphere. EPA provided a grant to the Rhode Island Department of Environmental Management, for work with the Davies Career and Technical High School in Lincoln, Rhode Island, to train thousands of auto body workers to use this new high-tech spray equipment. The owner of one auto body repair business claims that, because less solvent was used, the cost of purchasing the \$500 to \$600 spray guns for each of his employees paid for itself within three weeks. (See the Economic Opportunities section for more examples of the link between good business and good environmental practices.)

Municipalities also have an important role in protecting the environmental health and safety of our citizens. EPA, in collaboration with the National Oceanographic and Atmospheric Administration (NOAA), developed Computer-Aided Management of Emergency Operations (CAMEO) software that stores numerous databases, and automates emergency planning and compliance tasks for Local Emergency Planning Committees and other emergency preparedness agencies. CAMEO provides fast answers for anyone who needs to respond to environmental or health-related emergencies. In Maine, chemical and census data stored in CAMEO was used to help determine whether to evacuate areas around a compressed gas facility that had caught fire and burned out of control for several hours. EPA has an ongoing Train-the-Trainer program to help people

## THE CITY YEAR ENVIRONMENTAL TEAM

Thirteen members of Boston City Year's Environmental Team, with the sponsorship of EPA's Urban Environmental Initiative, planned a multifaceted environmental education curriculum, community partnership, and community service program to run from September 1996 through June 1997. Partners include Boston Edison, Earthworm Recycling, Rockport Transfer Station Recycling Facility, South End Neighborhood Health Center, Inquilinos Boricuas en Accion, and the Massachusetts Executive Office of Communities and Development.

The partners trained City Year Team members to be environmental leaders and teachers of energy, recycling, indoor environments, and related environmental health concerns. The City Year Team assists the Massachusetts Department of Energy in conducting energy audits to determine heat loss, testing for carbon monoxide emissions, and insulating homes. Team members also teach children about the environment in after school programs and have organized two environmental health fairs in Boston's South End, where they distributed energy-efficient light bulbs donated by Boston Edison. The City Year Team also makes indoor air quality/asthma home assessments in Roxbury, meeting with families to complete questionnaires, conducting walk-throughs to identify asthma triggers, collecting samples of dust for lead testing, conducting carbon monoxide tests, and distributing free carbon monoxide detectors and allergy-controlled mattress and pillow covers for asthma patients.

use CAMEO, and in 1996 alone, trained approximately 300 individuals in the United States, Canada, and other countries.

Municipal employees are taking the initiative to educate businesses in their communities about opportunities in environmental protection. One individual who exemplifies municipal initiative is Todd Dresser, a public employee at the Board of Health in Burlington, Massachusetts. He saw a need for local businesses to become familiar with the technical assistance available to them from a variety of sources. He surveyed local businesses to find out what they most wanted to learn. The first session, "Meet the Regulators," was held in the spring of 1996 at the local library and was sponsored by the area's Chamber of Commerce. The session was so successful that EPA is working with other municipalities throughout eastern Massachusetts to offer similar workshops on topics of interest to local businesses.

EPA has also become involved in a national project to address the quality of environmental education efforts, headed by the North American Alliance for Environmental Education (NAAEE). The project will develop guidelines for designing comprehensive and effective environmental education programs and materials. EPA is also working with NAAEE and others to collect and disseminate information about high-quality environmental education projects and materials.

The energy and commitment of New England's many environmental volunteers, and the willingness of businesses in the region to learn about and implement sound, cost-effective environmental practices, gives us an excellent opportunity to continue to teach one another about the importance of protecting our environment. Working together, we can understand how much we have to gain from environmental stewardship and put that understanding to work.